Table of Contents

Volume 57, Number 1, March 2002

1 J. Slater
R.J. Walton Slack – An appreciation

3 G. P. Keane
Agronomic factors affecting the yield and quality of forage maize in Ireland: effect of sowing date and plastic film treatment

11 E. Charmley
Intake, liveweight gain and feed preference by steers fed combinations of lucerne and Westerwolds ryegrass silages

19 A. J. Rook and N. H. Yarrow
Incorporating grazing behaviour measurements in models to predict herbage intake by grazing dairy cows

25 A. T. Adesogan and M. B. Salawu
The effect of different additives on the fermentation quality, aerobic stability and *in vitro* digestibility of pea/wheat bi-crop silages containing contrasting pea to wheat ratios

33 A. R. Sibbald, T. J. Maxwell, A. J. I. Dalziel and R. D. M. Agnew
The implications of controlling grazed sward height for the operation and productivity of upland sheep systems in the UK. 5. The effect of stocking rate and reduced levels of nitrogen fertilizer

48 F. R. McKenzie and J. L. Jacobs
Effects of application of nitrogen fertilizer on concentrations of P, K, S, Ca, Mg, Na, Cl, Mn, Fe, Cu and Zn in perennial ryegrass/white clover pastures in south-western Victoria, Australia

54 A. J. Rook, A. Harvey, A. J. Parsons, P. D. Penning and R. J. Orr
Effect of long-term changes in relative resource availability on dietary preference of grazing sheep for perennial ryegrass and white clover

61 P. L. Peri, D. J. Moot, D. L. McNeil, A. C. Varella and R. J. Lucas
Modelling net photosynthetic rate of field-grown cocksfoot leaves under different nitrogen, water and temperature regimes

Volume 57, Number 2, June 2002

73 N. K. Ranjit, C. C. Taylor and L. Kung Jr
Effect of *Lactobacillus buchneri* 40788 on the fermentation, aerobic stability and nutritive value of maize silage

82 C. N. R. Critchley, B. J. Chambers, J. A. Fowbert, A. Bhogal, S. C. Rose and R. A. Sanderson
Plant species richness, functional type and soil properties of grasslands and allied vegetation in English Environmentally Sensitive Areas

93 J. A. Laws and B. F. Pain
Effects of method, rate and timing of slurry application to grassland on the preference by cattle for treated and untreated areas of pasture

105 J. Jung, J. Yngvesson and P. Jensen
Effects of reduced time on pasture caused by prolonged walking on behaviour and production of Mpwapwa Zebu cattle

113 R. P. O. Schulte and J. H. Neuteboom
Advanced analysis of dry-weight-rank data to discriminate direct and indirect interactions between white clover and grasses in a multi-species pasture under a range of management strategies

124 G. T. Barthram, C. A. Marriott, T. G. Common and G. R. Bolton
The long-term effects on upland sheep production in the UK of a change to extensive management

137 K. Osoro, A. Martínez and R. Celaya
Effect of breed and sward height on sheep performance and production per hectare during the spring and autumn in Northern Spain

147 L. T. Havstad and T. S. Aamlid
Use of regrowth for forage in crops of timothy (*Phleum pratense* L.) cv. Grindstad grown for seed in Norway

157 P. L. Peri, D. L. McNeil, D. J. Moot, A. C. Varella and R. J. Lucas
Net photosynthetic rate of cocksfoot leaves under continuous and fluctuating shade conditions in the field

171 E. González-Estrada, R. H. Fawcett and M. Herrero
Integrating models of relative abundance of species with the dry-weight-rank method for the botanical analysis of forest understorey vegetation

184 Z. G. Weinberg, G. Ashbell, Y. Hen, Y. Leshem, Y. S. Landau and I. Brukental
A note on ensiling safflower forage (Research Note)

188 Book Reviews

Volume 57, Number 3, September 2002

191 C. P. Beckwith, P. J. Lewis, A. G. Chalmers, M. A. Froment and K. A. Smith
Successive annual applications of organic manures for cut grass: short-term observations on utilization of manure nitrogen

203 R. P. Rawnsley, D. J. Donaghy, W. J. Fulkerson and P. A. Lane
Changes in the physiology and feed quality of cocksfoot (*Dactylis glomerata* L.) during regrowth

212 P. Dillon, S. Crosse, B. O'Brien and R. W. Mayes
The effect of forage type and level of concentrate supplementation on the performance of spring-calving dairy cows in early lactation

224 M. N. Bugalho, R. W. Mayes and J. A. Milne
The effects of feeding selectivity on the estimation of diet composition using the n-alkane technique

232 A. H. Marshall, T. A. Williams, H. G. Powell, M. T. Abberton and T. P. T. Michaelson-Yeates
Forage yield and persistency of *Trifolium repens* × *Trifolium nigrescens* hybrids when sown with a perennial ryegrass companion

239 F. R. Li, A. F. Zhao, H. Y. Zhou, T. H. Zhang and X. Zhao
Effects of simulated grazing on growth and persistence of *Artemisia frigida* in a semiarid sandy rangeland

247 C. Carlen, R. Kölliker, B. Reidy, A. Lüscher and J. Nösberger
Effect of season and cutting frequency on root and shoot competition between *Festuca pratensis* and *Dactylis glomerata*

255 L. E. R. Dawson, R. M. Kirkland, C. P. Ferris, R. W. J. Steen, D. J. Kilpatrick and F. J. Gordon
The effect of stage of perennial ryegrass maturity at harvesting, fermentation characteristics and concentrate supplementation, on the quality and intake of grass silage by beef cattle

268 T. Griffin, E. Giberson and M. Wiedenhoeft
Yield response of long-term mixed grassland swards and nutrient cycling under different nutrient sources and management regimes

279 R. W. J. Steen, D. J. Kilpatrick and M. G. Porter
Effects of the proportions of high or medium digestibility grass silage and concentrates in the diet of beef cattle on liveweight gain, carcass composition and fatty acid composition of muscle

292 M. H. Bruinenberg, H. Valk, H. Korevaar and P. C. Struik
Factors affecting digestibility of temperate forages from seminatural grasslands: a review

Volume 57, Number 4, December 2002

303 O. Jewiss
Editorial

305 B. C. Venuto, D. D. Redfearn, W. D. Pitman and M. W. Alison
Seed variation among annual ryegrass cultivars in south-eastern USA and the relationship with seedling vigour and forage production

312 F. C. Coléno, M. Duru and L. G. Soler
A simulation model of a dairy forage system to evaluate feeding management strategies with spring rotational grazing

322 J. R. Crush, L. Ouyang, J. P. J. Eerens and A. V. Stewart
The growth of roots of perennial, Italian, hybrid and annual ryegrasses through a high-strength root medium

329 V. N. Owens, K. A. Albrecht and R. E. Muck
Protein degradation and fermentation characteristics of unwilted red clover and alfalfa silage harvested at various times during the day

342 H. G. J. Snell, C. Oberndorfer, W. Lücke and H. F. A. Van den Weghe
Effects of the colour and thickness of polyethylene film on ensiling conditions and silage quality of chopped maize, as investigated under ambient conditions and in mini-silos

351 D. J. Donaghy and W. J. Fulkerson
The impact of defoliation frequency and nitrogen fertilizer application in spring on summer survival of perennial ryegrass under grazing in subtropical Australia

360 R. J. Dewhurst, J. M. Moorby, N. D. Scollan, J. K. S. Tweed and M. O. Humphreys
Effects of a stay-green trait on the concentrations and stability of fatty acids in perennial ryegrass

367 C. Hopkins, J. P. Marais and D. C. W. Goodenough
A comparison, under controlled environmental conditions, of a ***Lolium multiflorum*** selection bred for high dry-matter content and non-structural carbohydrate concentration with a commercial cultivar

373 J. A. Milne, R. J. Pakeman, F. W. Kirkham, I. P. Jones and J. E. Hossell
Biomass production of upland vegetation types in England and Wales

389 U. Geber
Cutting frequency and stubble height of reed canary grass (***Phalaris arundinacea*** L.): influence on quality and quantity of biomass for biogas production (Research Note)

395 F. Gökbulak
Effect of American bison (***Bison bison*** L.) on the recovery and germinability of seeds of range forage species (Research Note)

401 R. W. J. Steen
Effects on performance and carcass composition of turning beef cattle out to pasture early in the spring (Research Note)

405 Author Index
408 List of Referees
409 BGS Council 2002–2003